JUL 9 1945

ROCKS and MINERALS

Official Journal of the Rocks and Minerals Association

A Magazine for Mineralogists, Geologists and Collectors

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★★

To the American People:

Your sons, husbands and brothers who are standing today upon the battlefronts are fighting for more than victory in war. They are fighting for a new world of freedom and peace. We, upon whom has been placed the responsibility of leading the American forces, appeal to you with all possible earnestness to invest in War Bonds to the fullest extent of your capacity. Give us not only the needed implements of war, but the assurance and backing of a united people so necessary to hasten the victory and speed the return of your fighting men.

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JUNE, 1945

25c

Vol. 20, No. 6 Whole No. 167

The Rocks and Minerals Association

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Organized in 1928 for the increase and dissemination of mineralogic knowledge

To stimulate public interest in geology and mineralogy and to endeavor to have courses in these subjects introduced in the curricula of the public school systems; to revive a general interest in minerals and mineral collecting; to instruct beginners as to how a collection can be made and cared for; to keep an accurate and permanent record of all mineral localities and minerals found there and to print same for distribution; to encourage the search for new minerals that have not yet been discovered; and to endeavor to secure the practical conservation of mineral localities and unusual rock formations.

Ever since its foundation in 1928, the Rocks and Minerals Association has done much to promote the interest in mineralogy. It has sponsored outings, expeditions, formations of mineralogical clubs and the printing of many articles that have been a distinct contribution to mineralogy.

Those of our readers who are members of the Association can rightly feel that they too were sponsors of these many achievements that have helped to give mineralogy a national recognition. Among your friends there must be many who would like to have a part in the Association's work—to share with you the personal satisfaction, the pleasure, and the benefits of membership. Will you give your friends this opportunity to join the Association by nominating them for membership?

Each new member helps to extend the Association's activities—helps to make your magazine larger, better, and more interesting, and above all assists in the dissemination of mineralogical knowledge.

Some advantages of membership: All members in good standing receive:

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Mineralogical clubs which subscribe for **Rocks and Minerals** also become affiliated members of the Rocks and Minerals Association and enjoy all the advantages which such an affiliation affords.

A number of clubs hold membership in the Association, participate in the annual outings, and co-operate in many ways in furthering the aims and ambitions of the Association.

Affiliation with the world's largest mineralogical society cannot fail to increase membership, enlarge circles of acquaintanceship, and stimulate a keener interest in mineralogy.

ROCKS and MINERALS

PUBLISHED MONTHLY

Edited and Published by PETER ZODAC

June 1945

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ROCKS and MINERALS PEEKSKILL, N. Y., U. S. A

The official Journal of the Rocks and Minerals Association

CHIPS FROM THE QUARRY

Rocks and Minerals Offices To Close 10 Days

From June 22nd to July 1st, inclusive, the offices of Rocks and Minerals will be closed so that the Editor may take a vacation (he needs one). He plans to spend one week of this period in the sunny south as a guest of Mr. and Mrs. Horace W. Slocum, of Rock Hill, S. C.

The lure of southern fried chicken, the large number of interesting minerals in Mr. Slocum's fine collection, and the many interesting localities around Rock Hill are too much for your poor hard-working Editor to pass up and especially when combined with the cordial invitation from the Slocums to spend a week with them. The Slocum residence on Charlotte Avenue is apparently headquarters for mineral collectors of the Carolinas so another treat is in store for the Editor — meeting these Southern collectors.

LOUIS L. LADD
March 29, 1882 — Feb. 5, 1945

It is with much sorrow that we have to announce the death of Louis L. Ladd, of Chicago, Ill. He was taken sick suddenly on Saturday, February 3rd, 1945 and passed away Monday morning, February 5, 1945. Death was due to streptic virus pneumonia.

Mr. Ladd was born in Chicago on March 29, 1882. While still a very young boy he became interested in minerals and this interest persisted through all the years up to his very death. He was especially interested in fossils and had a large and very fine collection of them with a large number of duplicates. He also had a large collection of Indian relics. He was a member of the Rocks and Minerals Association and had been for years.

Mrs. Ladd, the only survivor, is selling the collections. Her advertisement appears in this issue.

Noted Dealer Purchases Lincoln Lodge

Editor Rocks and Minerals:

We have purchased the Lincoln Lodge and have moved into it tons of minerals and equipment. Have been too busy to keep up our correspondence but have tried to get all orders out as promptly as possible. We will have a modern, clean, and comfortable lodge when we get through with the improvements and will be pleased to accommodate all our mineral-minded friends when rationing will permit travel again. We are in a fine locality for trout fishing and large game hunting, and rock collectors can find many interesting and rare specimens here. We will have a large mineral display in the lodge office.

John L. Funk,
Wyoming Minerals,
Laramie, Wyo.

April 30, 1945.

Electric Arc Speeds Up the Cutting of Diamonds!

Editor Rocks and Minerals:

There is a brief article in a government publication, *Technical News Bulletin*, U. S. Bureau of Standards, Washington, D. C., April 1945, No. 336.

Briefly it says that in cutting and polishing diamonds an electric arc is now being used running a current of 0.5 ampeers and 5000 volts through the diamond to the cast-iron lap. This speeds up the cutting rate about four times. It is also used on diamond saws.

It will certainly be impractical for most amateur lapidaries to employ this method, but I think a note of it in *Rocks and Minerals* would be interesting to all these people.

Charles R. Toothaker,
Curator Commercial Museum,
Philadelphia, Penn.

May 5, 1945

BIBLIOGRAPHICAL NOTES

The Art of Gem Cutting: By Dr. H. C. Dake and Richard M. Pearl.

The 3rd edition of this very popular book has just been released. It is greatly enlarged and completely rewritten. Its authors, Dr. Dake, Editor of *The Mineralogist*, and Mr. Pearl, Certified Gemologist, are two of America's most noted mineralogists and gemologists.

The Art of Gem Cutting contains 128 pages and 55 excellent illustrations. Its contents are as follows: Preface, p. 3; Gem Cutting as a Hobby, pp. 4-7; Cabochon Cutting, pp. 8-40; Facet Cuting, pp. 41-57; Gemology, pp. 58-88; Special Lapidary Technic, pp. 89-126. It is 6 x 9¼ in size, has an attractive yellow and green paper cover, and sells for $1.50.

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AMETHYST — SMOKY QUARTZ — TOPAZ
In Northern New Hampshire

By HAROLD J. VERROW
Hartford, Connecticut

Introduction

There are, in Northern New Hampshire, localities where a large quantity of amethyst and smoky quartz, and a smaller amount of topaz have been found and collected recently. All the localities are unknown except to comparatively few collectors, excepting one locality where amethyst has been known to the natives for a period of at least 50 years. Percy Leggett, and the writer, discovered a number of localities while two other friends, Fred Goodwin and Philip Morin, discovered several others. This prospecting and collecting was done about five years ago. Topaz, which occurs closely associated with the amethyst and smoky quartz, was discovered independently by two parties, first by Morin and Goodwin, in the town of Stark, and shortly afterwards by Leggett and the author, in the town of Milan. Since our first discoveries in 1937, a number of other localities have been found. Small deposits of amethyst and smoky quartz have been found in the drift southeast of these localities. A number of other interesting minerals have been found with these minerals and will be described later in this article. It may be well to state that these localities are by no means exhausted as the amethyst and topaz-bearing rock is found over an area of about 400 square miles and not more than 5% of this area has been prospected.

Location

The amethyst and topaz-bearing rocks comprise nearly one-half of the so-called Percy Quadrangle which is in the northwestern part of New Hampshire. This quadrangle includes the whole of the township of Stark and portions of the following townships — Lancaster, Kilkenny, Milan, Berlin, Dummer, Millsfield, Odell, Strafford and Northcumberland. Percy, a small town, in the township of Stark, is situated nearly in the exact center of the quadrangle. Stark and Milan, both small towns, are also in the quadrangle. All three towns, Percy, Stark and Milan are on route 110 that connects Berlin with Groveton. Berlin, a city with a population of 20,000, is 11 miles from Milan, and Groveton with 2,000, is 14 miles from Milan. Greens Ledges, in the western extremity of Milan, and Diamond Ledges on Long Mountain in the northern extremity of Stark, are localities for amethyst. Topaz occurs on Greens Ledges in Milan and on Victors Head in the northern extremity of Stark. Amethyst has been found between North Peak and Square Mountain in the township of Kilkenny and two places in the township of Strafford, the first on the south peak of Percy Peaks and the other, in a drift on a road near Sugarloaf Mountain. The Percy Quadrangle is north of the President 191 Range and has a number of peaks over 3,000 feet high, — Mt. Cabot 4,000 feet, The Bulge 3,920, The Horn 3,905, Hutchins Mt. 3,710, Percy Peaks 3,220 and 3,418, Sugarloaf 3,701, Long Mt. 3,640, and Whitcomb Mt. 3,350 feet. Fourteen ponds and lakes besides a great number of fine brooks make ideal sporting in summer and winter. Many of the peaks

such as Mt. Cabot, the Percy Peaks and portions of Long Mountain are bare due to forest fires which have swept over them in the past, and many of them have short gnarled shrubs and blueberries. Since the hurricane some of the ledges are nearly impassable due to blowdowns matted 10 to 15 feet thick. One benefit from the hurricane was the exposing of portions of the ledges that were previously covered by vegetation. Amethyst on Greens Ledges was found at the 1,700 foot level and on Diamond Ledges at the 2,000 foot level. Topaz occurs on Greens Ledges at the 2,000 foot level and on Victors Head at the 1,700 foot level. No pockets of these minerals have yet been found below the 1,600 foot level. The amethyst on Greens Ledges is 600 feet above the valley in which the Upper Ammonoosuc River flows and on Diamond Ledges is 800 feet above the river. There are undoubtedly many other localities in this formation where amethyst and topaz occur. From time to time farmers, 10 to 20 miles southeast of this formation, in ploughing their fields have turned up amethyst. It is the writer's opinion that the whole range from Kilkenny to the northern extremity of Strafford, a distance of about 20 miles, has many amethyst and topaz localities. There has been a report recently that amethyst of the finest quality has been found on the western slopes of Hutchins Mt. in the Percy Quadrangle.

The Granite and Its Druses

The granite in which topaz, amethyst and smoky quartz occurs is a reddish to grayish-white biotite granite, is coarse grained and without foliation. Locally the biotite granite grades into hastingsite granite, and in turn the hastingsite granite grades into riebeckite granite. The southwestern portion of the quadrangle contains a large body of syenite and quartz-syenite. Mica schist, gneiss and various schistose rocks makes up the rest of the quadrangle. The reddish to grayish-white biotite granite is definitely the youngest rock present since it cuts most of the others. Riebeckite granite is the next, hastingsite granite the next, quartz syenite, granite porphyry, quartz syenite, syenite follows and the oldest are the volcanics. It is clear that these rocks did not originate at their present levels, but formed at some depth below the present surface of the earth and were then injected to the higher levels. Little differentiation took place in the bodies now exposed to view; the evidence for this is that the contacts between the different members are relatively sharp, in many instances they show a knife-edge sharpness. Some of the rocks, such as the hastingsite granite and the riebeckite granite, grade into the biotite granite but these gradational contacts are usually confined to zones a few feet wide and are insignificant when compared to the size of the rock bodies as a whole. This biotite granite and the associated minerals are the same as in the Conway quadrangle and are undoubtedly of the same phase and age. The druses ("pockets") do not occur uniformly distributed through the granite but occur where ever pegmatite is present. On Long Mt. there are thousands of such pockets and on Greens Ledges there are many hundreds. On Percy Peaks thousands occur and in fact every place where there is biotite granite there are a number of pockets. These pockets have no uniform diameter, being sometimes smaller than marbles and up to eight to ten feet in diameter. There are only two known pockets that have such large diameters. The average diameter is around a foot or smaller but many two to three feet in diameter are known. These cavities generally show, in section, a wall of biotite granite with microcline, then a zone of graphic granite which is finer grained on the wall side and coarser toward the open side. Knebelite, allanite, and topaz were found in a few instances in the graphic granite zone. There is then a lining of large euhedral and subhedral masses of pink to white feldspar and smoky quartz which project into the cavity and are crystallized. These crystals are in turn often coated with smaller crystals of later minerals. These cavities or pockets are considered to have been formed by strongly compressed gas, prior to the liquid magma becoming entirely solid, and spherical and

ellipsoidal cavities were formed. These pockets are lined with minerals which were still crystallizing out in the granite. Later a succession of emanations and solutions brought in new material, such as carbonates and fluorides, depositing calcite, siderite, fluorite, and topaz on the crystals previously formed. In this granite there are a number of vugs which seemed to have been formed partly as druses and were later enlarged by solutions circulating through them. These pockets are of course secondary in nature, and contain such minerals as microcline, quartz, fluorite, chlorite and albite. Ages later another period began when the erosion surface was brought down near its present level and groundwater began to circulate through the granite into the druses and cavities. Alteration took place and many of the minerals dissolved, the calcite, topaz, and the siderite altered to limonite and microcline to kaolinite. Glaciation destroyed many of the surface pockets and portions of the ledges and distributed the debris 10-15 miles south of the nearest known biotite granite outcropping. The writer found a large block of the granite in Gorham, 15 miles south of the Percy quadrangle, that contained a sheet of druses with microcline crystal inclusions, smoky quartz crystals, and albite crystals. A number of pieces of amethyst, one as large as a man's head, have been found on a farm in Gorham.

Description of the Minerals

AMETHYST — Hundreds of crystals of amethyst have been collected during the past four years at the two localities, Green Ledges and Long Mt. Generally the amethyst, like the smoky quartz, is found below the pockets in the debris and vegetation, although a number of pockets were seen with the amethyst, intact, but these pockets were small, say 8 to 10″ in diameter, and the amethyst crystals were no more than 1½ to 2″ long. As to the occurrence of crystals in the debris, the writer has advanced a theory. After the pockets had been laid bare either by erostion or glaciation, the lining of microcline altered to form kaolinite carrying down the quartz crystals to the bottom of the pocket which gradually filled to the top of the pocket. By the action of water and frost these pockets were gradually emptied and the contents deposited at the foot of the pocket. Of course the surface water carried in some material as in many pockets fragments of foreign rock were found. The material that fills these pockets is generally hard and is composed of kaolinite, fragments of microcline crystals, amethyst or smoky quartz crystals, and sometimes foreign material such as water-worn rocks and sticks. It took Leggett and the writer one whole day to clean out such a pocket 1½ x 3 feet. Fifty or sixty very black quartz crystals averaging 2″ x 3″, were taken out of this pocket. Much of the amethyst is intergrown with smoky quartz and as many as ten different stages of growth are visible in some crystals; first a layer of smoky quartz, then amethyst, and quartz alternating up the crystal until the top or termination is reached. The termination may either be amethyst or smoky quartz. This is due to solutions carrying in smoky quartz depositing some of its burden and for some reason this solution stopped coming in for a period of time. Later this solution, slightly different in composition, containing perhaps a little manganese, started again to flow through the vugs and pegmatite depositing more of its burden on the already formed portions of crystals. This portion of the crystals was amethyst. This continued for a period of time until the crystal was completely formed. Many crystals found have a very sharp dividing line of amethyst and smoky quartz. Later a succession of entirely different solutions flowed through these vugs depositing, on the already formed minerals, crystals of other minerals, such as topaz, fluorite, calcite and siderite. Some crystals collected have cores of smoky quartz and an outside layer of smoky quartz, others contain cores of amethyst and an outside layer of smoky quartz and still in other crystals it is apparent that the two solutions mixed, crystallizing out as purple-black crystals. Other crystals may be pure amethyst and vary from a very pale to a very deep reddish-purple. The

largest crystal of amethyst found weighed 18 pounds and had a little smoky quartz on its base. Many specimens found had amethyst deposited on masses of milky quartz making very attractive specimens. A great number of very fine brilliants, from one to 40 carats in size, have been cut from this material. A large number of crystals collected are impregnated with small gas bubbles ½mm or smaller in size. One amethyst has gas bubble about 1mm in size that moves about 1 inch.

SMOKY QUARTZ — Smoky quartz is much more abundant than amethyst and thousands of crystals have been collected. In size they will vary from ½" to 20" long. The largest crystal collected was found by Leggert at Diamond Ledges on Long Mountain; it was 14 x 20" in size and weighted 91 pounds. Many crystals 5-10 pounds have been collected, and thousands ½ - 2" long have been found either loose in the debris like amethyst or intact in pockets. Most of the smoky quartz crystals are very dark and transparent though many of the smaller ones are quite light in color. The smaller crystals are sometimes brilliant with no etching either on the prism or termination. All the larger crystals are etched and some are incrusted with a very thin hard layer of kaolinite, which can be dissolved in a strong solution of sodium hydroxide (lye) after soaking for several weeks. The smoky quartz crystals occur flattened, twisted, and are short or long in some, one-half of the termination protrudes ¼" beyond the other half and some have a very dark center with a light exterior. The large crystal that Leggett found has a one inch coating of secondary amethyst on its base.

TOPAZ — Several hundred crystals of of topaz were found in 1938 on Greens Ledges and a large number on Victor Head. In 1940 Mr. Goodwin of Berlin discovered another locality in the same range and excellent crystals were collected. None of the topaz crystals are of exceptional size, the largest being about 4 x 2 x 2". One pocket on Greens Ledges, 14 x 9 x 6", yielded 56 crystals, 10 of them perfect. They were entirely free from etching, were transparent, flawless and light yellow in color and all had modified terminations — every termina-

An 18 lb. smoky quartz crystal from northern New Hampshire.
Photo by Leslie Goodrich

tion different. They averaged about 1″ long and ½″ in diameter. A hundred feet from this pocket another was found that contained many crystals which were etched and many were almost entirely dissolved . This was a vertical pocket and surface water was responsible for the etching and dissolving. A hundred feet from this pocket another pocket was found by Mr. Goodwin. This pocket contained a great number of crystals but all were imbedded in hard kaolinite and were all badly etched. In this pocket many of the crystals were frozen into the graphic granite and were impossible to remove. A number of excellent gems have been cut from this material. Percy quadrangle is a new locality for topaz in New Hampshire. Massive topaz occurs on the northeastern end of Greens Ledges near a large number of pockets. No crystals have yet been found on this end of the mountain but there is no apparent reason for this. Some of this massive topaz has altered to sericite (muscovite). Associated with this topaz a few poor beryl crystals have been found.

FLUORITE — Fluorite though not abundant is found occassionally as small colorless, purple or green crystals, either associated with topaz or quartz or with a gray-green chlorite. Commonly the crystals are cubes, one is a combination of a cube and an octahedron. Much of this fluorite is phosphorescent. One specimen phosphoresced 5 days when exposed to a 50 watt lamp for 1 minute and the temperature maintained at 70° or over.

MICROCLINE — Microcline is abundant in fine crystals on Greens Ledges and Long Mt. The largest crystal found was about 4″ long, 3″ thick. It occurred in a pocket 6″ in diameter on Greens Ledges, thus occupying nearly all the pocket. The average size is about 1½″. Many are twinned, Carlsbad and Baveno being common. Tabular crystals are also common. The color varies from nearly white to pink and all are opaque. These crystals occur associated with quartz, fluorite, and topaz, and many are found, like amethyst and smoky quartz, in the debris. A very unusual occurrence of microcline occurs at Diamond Ledges on Long Mt. Here it occurs in a vertical pocket 10 feet in diameter as crystallized nodules. One portion of the nodule is flat and from the flat surface crystals of smoky quartz protrude. The spherical surface of the nodule is crystallized, and at first glance appear to be rhombohedral crystals of feldspar, because the general appearance of the portions of the feldspar crystals protruding from the nodule resemble rhombs. The following characteristics are for the smoky quartz crystals protruding from the nodules. One large quartz crystal is usually situated in the exact center and surrounding this large crystal are a large number of small light colored brilliant crystals which are always oriented to the larger crystal, that is, the same face on every crystal regardless of size is at the same angle at the larger one. The crystals of quartz resting on the feldspar nodule always extend into the feldspar as irregular roots giving rise to a typical graphic structure within the nodule. These roots extend into the nodule ¼ to ½ the diameter of the nodule, and it is logical to assume that the feldspar and quartz grew simultaneously. Many of these nodules are twinned. They average about 5″ in diameter and weigh about three pounds. One very large nodule was found that measured 3½ feet in diameter and weighed about 300 pounds. It could not be transported so was left at the pocket. Many nodules are incrusted with crystals of limonite, pseudomorphic after siderite, and brought in by later solutions. Other associations are smoky quartz crystals, microcline crystals, and a little allanite.

KNEBELITE — This very rare specie is found at one locality, Diamond Ledges, Long Mt. Here it occurs imbedded in the graphic granite at the top portion of a huge pocket, 300 feet south of the feldspar nodule pocket. This pocket is at least 10 feet in diameter and like all the other large pockets as entirely bare of all minerals except the knebelite. All the other minerals, smoky quartz, amethyst, microcline crystals, and albite are found

in the debris under the pocket. Amethyst was first discovered at this pocket and was known for at least 50 years. The knebelite mass is approximately 12″ long, 4″ wide and several inches thick. Many small specimens 1 x 1″ and several larger pieces up to 3 x 4″ has been taken from this mass but most of it is still intact at the pocket. At this locality knebelite occurs massive with a distinct cleavage. It is black or brownish-black in color and has a hardness of 6.5 and a gravity of 4.30. It is soluble in hydrochloric acid with gelatination. It is easily fusible and yields a manganese bead. It is an iron-manganese silicate.

MOLYBDENITE — This mineral is common throughout this granite stock. It occurs on Greens Ledges as small plates in pockets associated with fluorite and on Diamond Ledges in pockets associated with smoky quartz. Small plates were seen in quartz in pegmatite dikes on Long Mt.

LIMONITE — Limonite, pseudomorphic after siderite crystals, is very common on Long Mt. At the feldspar nodule pocket it is abundant and occurs as fine small crystals incrusting smoky quartz crystals and microcline nodules. On Greens Ledges it occurs incrusting feldspar crystals in small pockets.

ALBITE — Albite is quite common at the two localities replacing portions of microcline that were dissolved. Usually the albite is formed in parallel growths on the parent microcline crystal. The degree of dissolving of the microcline is not uniform. Some crystals dissolved completely and in its place albite was deposited as fine white translucent crystals. In one pocket examined, the microcline was completely dissolved and was in turn filled with platy albite-clevelandite. In other crystals only portions of the crystal dissolved and albite was deposited on the remainder to the same thickness as the original crystal. On other crystals the microcline did not dissolve at all but albite formed on the crystal faces.

SERICITE — Sericite ocurs on Greens Ledges associated with massive topaz and amethyst. Here it occurs as an alteration of topaz. On many specimens collected, topaz and sericite occur together; it also occurs as masses up to 6″. It is a very fine scaly muscovite; the scales cannot be seen with the naked eye. It is soft, feeling like talc, and is yellowish-white in color. Eight feet away from this topaz-sericite-amethyst pocket a dike of basalt occurs; this probably was responsible for the alteration of the topaz to sericite.

BERYL — This mineral has been found at one locality in this granite stock — Greens Ledges. It would be logical to assume that with so much pegmatite, beryl would be quite common, but this is not so. At Greens Ledges it occurs frozen in quartz in a pegmatite dike 8 feet from a large pocket. It was thought that pocket beryl would be found in the large pocket, as beryl occurred in quartz only a few feet away, but we found none. However, the pocket yielded some fine amethyst perched on white quartz crystals. Associated with the beryl is massive topaz, sericite, and fluorite. Interesting characteristics of this beryl is that the centers of some of the crystals have altered to a light brown substance leaving a roughly hexagonal cavity in the center of the crystal.

CHLORITE — Chlorite is common at the topaz locality on Greens Ledges. It occurs as granular masses and small crystals associated with crystals of topaz, fluorite, and smoky quartz. Several good chlorated muscovite crystals were found, the largest about 2″ in diameter. The chlorite is probably prochlorite.

PYRITE — Pyrite, a secondary mineral, was found at one locality on Greens Ledges. Here it occurred in a 8″ pocket with good fluorite, smoky quartz, and microcline crystals. The position of the pyrite in the sequence of mineralization is not known.

MUSCOVITE — Muscovite is very common as plates with a roughly hexagonal outline in the pegmatites of this granite stock. Several perfect hexagonal crystals have been found. Several good crystals of zonal muscovite have been found at Greens Ledges.

MINERAL NOTES FROM COLORADO SPRINGS, COLO.

By GEORGE M. WHITE

An event of considerable importance to mineral collectors of the Pikes Peak region took place on March 11, 1945, here in Colorado Springs. The occasion was the opening for sale of a portion of the duplicate mineral specimens of the late Lazard Cahn of this city.

At the time of his death in 1940, Mr. Cahn had not made any plans for the disposition of his fine mineral collection. For almost five years the several cabinets containing his specimens have been stored here in the city. Last summer, one of the cabinets of duplicates was placed on sale and local collectors eagerly acquired the majority of choice items.

Through the kindness of Mr. Cahn's sister, Miss Nellie Cahn, another cabinet of even better material was recently released. The work of classifying, arranging, and pricing the minerals was most efficiently done by Mr. Willet R. Willis and Mr. O. A. Reese, both prominent mineral collectors of the city and active members of the Colorado Springs Mineralogical Society.

On Sunday morning, March 11, Mr. Reese formally opened the cabinet for sale. About a dozen local collectors gathered in his office to inspect the several drawers of minerals which had been arranged about the room. From that time on throughout the day his office was a busy place, as others dropped in to make their choices. The rush continued during the ensuing week, and even now, a month later, many of us go back again and again, recalling some particular specimen which we previously had passed up.

To those of us who in years past spent many pleasant hours with Mr. Cahn and enjoyed the privilege of selecting from his stock of duplicates, the event was like the renewal of an old friendship. To the newer members of the collecting fraternity it offorded an opportunity to acquire some excellent material at reasonable prices from the carefully selected duplicate stock of one of this country's truly outstanding mineralogists.

As to the minerals placed on sale, it should be mentioned that they were merely a portion of Mr. Cahn's duplicates and not his private collection. However, many fine minerals were displayed, a large number being from localities not now productive or available. While there were no superb museum pieces present, the average collector had a very wide choice. Among the better items should be mentioned the tourmalines from Haddam, Conn., and California; malachite pseudomorphs from Bisbee, Ariz.; rare herderites from Maine; unique quartz crystals from North Carolina, gemmy Madagascar tourmaline sections; a considerable amount of Franklin material; and rare minerals from many sources.

Of added interest was the presence of many old labels on the specimens. Mr. Cahn, in addition to his own labels, retained many of the original labels which came with the minerals he acquired. Such names as George L. English and Co., F. H. Stadtmueller, L. Stadtmueller of New Haven, Conn., A. F. Holden of Cleveland, J. Eyerman of Easton, Pa., as well as a number of foreign dealers, were among the "old-timers".

The event has been of great interest to all of our local collectors, as well as Denver and Pueblo enthusiasts. It is to be hoped that other units of the duplicate stock will be made available in the future. As long as the material holds out, Mr. Reese will retain the specimens in his office. Although some items have been completely exhausted, there is still some good material left, and Mr. Reese will doubtless be busy for a while answering inquiries.

Woodland Trail Walkers

For those who like to hike, a series of hikes have been arranged for the summer of 1945 and spring of 1946 by E. A. Dench, of Ho-ho-kus, N. J. New England, New York, New Jersey and Pennsylvania are the states in which hikes have been planned for. For further particulars, contact Mr. Dench.

RARE EGYPTIAN PICTORIAL JASPER EXHIBIT

Beginning Monday, June 11, 1945, the American Museum of Natural History, New York City, will place on exhibit,, in its gem and mineralogy room, the internationally famous collection of Dr. Claude H. Barlow's pictorial jasper stones. This collection numbers nearly two hundred individual items, all depicting landscapes naturally simulated in miniature, in stone.

The exhibit will be under the direction of Dr. F. H. Pough, the museum's Curator of Geology and Mineralogy, and will remain for the duration of the summer months.

The Barlow Collection contains both flat-cut pieces and cabochons ranging in size from twelve-square-inch plaques down to ovals a half-inch in diameter.

This collection is said to be the largest and finest known of this rare form of art and was recently brought to the United States from Egypt by Dr. Barlow himself. He has since returned to Cairo, where he holds the post of Director of the Bilharzia Destruction Section in the Egyptian Ministry of Public Health. An American medical scientist, Dr. Barlow has, since 1929, been engaged in this work of fighting a parasitical infestation which has ravaged half of Egypt's fifteen million population.

Over a period of the past twelve years, Dr. Barlow estimates that he has driven some 200,000 miles, during his spare moments pursuing his jasper-collecting avocation over the wadis and field depositories where these stones are found in and around Cairo. This type of stone apparently is peculiar to that area; at least, the finest examples of true pictorial jasper stones seem to be found there although the ordinary jasper, as known to present day mineralogists, is commonly found in practically all countries. Not to be confused with agates, to which it is akin, this jasper is sometimes called "the Egyptian Pebble" and is an opaque stone (as distinguished from generally translucent agate) of the quartz family which, when cracked or split open, reveals striations of colors unlimited in variety and range combined with dendritic formations to form, occasionally, tiny and exquisite landscape scenes and other pictures. Naturally, no two are ever alike.

Dr. Barlow, in speaking of his collection, calls attention to the peculiar coincidence of these Egyptian jasper pictorials resemblance, in their similitude of scenic splendor, to the very territory in which they are found. He admits that he is somewhat influenced in helping nature to display this phenomena by his own method to cutting at various angles to find scenes which match the scenery around Cairo which he so admires. He never, however, resorts to artificial methods such as dyes or inlays to obtain the unusual landscapes as naturally deposited in stone.

Dr. Barlow estimates he has cracked some two million stones over the twelve years of collecting to find the two hundred gems which constitute his collection as it presently stands. He does all his own grinding, polishing and mounting of these pieces and for that purpose has a complete lapidary workshop in his Cairo home.

He considers these stones to be a new contribution to the fine arts, because of his partial control over the compositions formed by otherwise natural color variations. Actually, this art probably could be said to fall somewhere between the fine arts and those of the lapidarist. A true definition of the art is difficult because of its very rarity. No similar self-created collection has ever been known previously and the last known similar worker to any extent in these stones was a lapidary of the eleventh century who cut the stones for use in decorating a few jewel box lids — and his stones were not selected or cut for their pictorial values.

Museum Curator Pough says, anent the history of these rare mineral freaks, that the few examples extant some centuries ago brought fabulous prices as items in the collections of the royal houses of Asia and Europe, and were only there to be found. The fine jasper pictorials are still rare, moreover, and a cited outstanding

example is the naturally-created portrait of Chaucer in an Egyptian jasper owned by the British Museum. Dr. Pough is also authority for the statement that Dr. Barlow is the only known actual artisan in these stones and he places Barlow as doubly unique when the extent of the work represented in this collection is considered.

While the collection is in America, it will be in the supervisory custody of Dr. Barlow's daughter, Mrs. Hester Barlow Floherty of New York City.

SAND BARITE IN OKLAHOMA

By R. V. SEVER
Oklahoma City, Oklahoma

In central Oklahoma is found a peculiar rose-shaped aggregate or concretion of barite crystals which have been widely distributed among collectors all over the country. The concretion, about half of which is sand, is called "sand barite", "sand barite crystal", "petrified rose", or "barite rose". It is usually dark red in color.

This "Sand Barite" region is found in the Garber sand and extends in a narrow belt from near Guthrie, in Logan County, south to Noble, a small town of about 300 pop., 8 miles south of Norman, the county seat of Cleveland County — and on to Pauls Valley, further south in Garvin County.

The largest single barite concretion ever reported was found about 8 miles east of Norman, where smaller ones occur in abundance; this specimen weighed approximately 110 lbs.

The average sand barite is small and the smaller ones are the most perfect. They are in all sorts of shapes, some very smooth and rounded like a ball and some are wrinkled; but the general shape is spherical.

These "rose rocks" are very much sought after here in this region for rock gardens, lining walks, ornamenting fireplaces, decorating retaining walls for yard terraces, and sometimes intersersed among other stones in house building. These barite concretions do not always occur in single specimens as might be supposed but frequently are in great massed brecciations with other sandstones, the true concretions standing out all over the mass like the decorating candy on a birthday cake. One of these masses is on display in the Oklahoma Historical Building, here in Oklahoma City, that must weigh at least 150 lbs.

The writer knows five localities where the barites have weathered to the surface and are easily collected.

Finest Bloodstones Come From India

Bloodstone (heliotrope) is a dark green chalcedony containing scattered spots or drops of red jasper. It is much used for gems.

The best bloodstone is found in western India, especially on the Kathiawar Peninsula (S. E. of Cambay), at Rampur, in Ahmedabad district (N. of Cambay); and in the Deccan trap (basalt), particularly in the state of Hyderabad (S. E. of Cambay).

The stones are sent to Cambay for cutting and because of this, their locality is commonly given as Cambay, India.

Cambay is a city of about 25,000 pop. situated on the northern end of the Gulf of Cambay in western India.

Recent Beryl Finds Near Pala, Calif.

By ALBERT EVERITT
Escondido, Calif.

The only discovery in gem minerals in San Diego County, Calif., during 1944, is a variety of salmon-golden beryl (bordering on morganite). Some sizeable crystals were mined from pegmatite on Heriart Mt., near Pala, near where kunzite was first found in California by the Sicklers (the beryl was found on the western trend of that dike). The largest crystal cut a perfect stone of 50 carats. I had several stones cut from my various finds which are from 2 to 7½ carats; the stones are unusually brilliant though a bit light on color.

SOME RECENT BERYL FINDS IN VIRGINIA

By W. R. BROWN *

* *Associate Geologist, Virginia Geological Survey.*

Beryl has been found in Virignia at a number of unreported localities as a result of war stimulated mining and prospecting for mica. Some fairly large crystals have been recovered and specimens of gem and near gem quality have been found at several places.

The pegmatite area about Amelia Court House, Amelia County, has long been, and remains, by far the most important beryl producing district in the State. Beryl has been reported from the Rutherford, Morefield, Pinchbeck (McCraw No. 3), and Ligon mines in this district. The greatest quantity as well as the largest crystals have come from the first two mines. Fontaine[1] reported the recovery of crystals 3 to 4 feet long and as much as 18 inches thick from the Rutherford mines; and Glass[2] states that crystals comparable in size to these have been found at the Morefield mine. Recently, beryl has been recovered, possibly not for the first time, from a number of other localities near Amelia. These include the Champion mine 2¾ miles slightly north of east of Amelia; the Wingo mine near the southern town limits of Amelia; the James Anderson mine and Jenkins prospect near Rhodophil 10 miles west-northwest of Amelia; the Truehart prospect about 1½ miles west-northwest of Amelia; the Lily B. Vaughan, Waverly Vaughan, and Earl W. O'Neil properties about 3 miles east of Amelia; and the Flippen and Dobbin properties about half a mile south of the Morefield mine and about 3½ miles slightly north of east of Amelia.

At the Champion (Jefferson No. 4) mine, a mine famous as a producer of high quality mica but heretofore unimportant as a beryl producer, a number of large crystals were found late in 1944. All were discovered within a small area near the mid-portion of the pegmatite dike, about 60 feet below the surface, and adjacent to a large medial mass of quartz. The largest crystal was about 4 feet long, 12 to 13 inches thick, and weighed about 500 pounds. Another well-formed crystal was 47 inches long by 4 to 5 inches thick. A radiating mass of crystals 6 to 7 inches thick was also found. Most of the crystals recovered from the mine were fractured in part but were translucent pale greenish blue in unfractured areas. Some approached gem aquamarine in part. All of the larger crystals were sold for their beryllium content.

At the Truehart prospect tiny crystals of aquamarine beryl were found to be abundant in a small pegmatite dike or vein. Nearly all of the crystals occur in a segregation of fractured, transparent, somewhat waxy quartz; although a few occur in the associated microcline. Probably the most striking feature of the crystals is their long slender habit. Few exceed ⅛ to ¼ inch in thickness, though many are from 4 to 7 inches long. The crystals are perfectly clear and have a delicate aquamarine color where but little fractured. But few if any are sufficiently free from minute fractures to permit cutting. In spite of this defect, many pretty show specimens have been recovered. Numerous attractive crystals of brilliant black tourmaline with symmetrical round-triangular cross sections have also been obtained from this deposit.

An especially interesting beryl-bearing pegmatite has recently been brought to light in what might be considered an extension of the Amelia pegmatite area into Powhatan County to the northeast. This is the Herb No. 2 prospect a mile east of Road 613 and 3¼ miles (air line) northeast of Flat Rock.

The dike at this place is markedly similar in mineralogy and mineral zoning to the famous Rutherford and Morefield dikes near Amelia. It has been shown by pits and trenches to be over 200 feet long

1 Fontaine, W. M., Notes on the occurrence of certain minerals in Amelia County, Virginia: Am. Jour. Sci. 3d ser., vol. 25, pp. 330-339, 1883.

2 Glass, Jewell J., The pegmatite minerals from near Amelia, Virginia: Am. Min., vol. 20, no 11, pp. 741-768, 1935.

The large beryl crystal from Herb No. 2 mine, Powhatan Co., Va., that was donated by Mr. Carl Fleming to the Virginia Geological Survey.
Crystal is 20" x 17" x 15" in size and weighs about 300 lbs.

and from 8 to 40 feet wide. Irregular and discontinuous masses of quartz extend centrally through much of the dike. Bordering these, or occupying the central part of the dike where quartz is absent, is a zone of blue-green microcline (amazonstone) and buff microcline. Adjacent to this zone and cutting irregularly into it is a zone of muscovite, biotite, beryl, and cleavelandite. The wall zones consist chiefly of kaolinized feldspar, probably albite, part of which retains cleavelandite outlines.

Several rather large beryl crystals were recovered during exploration of this deposit. One incomplete crystal 20 inches long, 17 inches thick, and weighing about 300 pounds was given by Carl Fleming the owner of the property, to the Virginia Geological Survey for display in Brooks Museum at the University of Virginia. This crystal is hexagonal in cross section and is a pale greenish blue. Several crystal faces show a strong cuneiform-like arrangement of casts after cleavelandite and inclusions of kaolinized cleavelandite.

Previously unreported in Henry County is the occurrence of gem golden beryl as well as common green-blue beryl on the K. E. Williams property half a mile south of the crossing of Grassy Creek, by Highway 58 about 3 miles southwest of Martinsville. The discovery was made by Mr. Williams while exploring a small kaolinized pegmatite for mica. All of the beryl found was in the form of small crystals, the largest being about 7 inches long. Only a small percentage of the crystals are of gem grade.

Other occurrences of common beryl in Virginia, not known by the writer to have been reported, are: at one or more of the mines of the Central Mica Company and at the Simms and Klondike mines on Chestnut Mountain, Franklin County; at the Patterson feldspar mine in Bedford County; on the Evans property near the junction of Roads 647 and 689, about 2 miles northwest of Cullen, Charlotte County; and at the Last Mile mica prospect 6½ miles suothwest of Ladysmith, Caroline County.

RIEBECKITE FROM WEST QUINCY, MASSACHUSETTS

By GUNNAR BJAREBY
Boston, Massachusetts

During the past year there appeared in this magazine a short notice about a new find of long-fibered Crocidolite in West Quincy, Massachusetts. Excellent specimens of it were brought to a meeting of the Boston Mineral Club. From the meager descriptions of the find the exact location was finally tracked down.

Recent research has concluded that the relation between Riebeckite and Crocidolite is very close, and the slight difference in formulae does not substantiate the latter as a separate species.

Riebeckite $Na_2Fe_3(Si_4O_{11})_2(OH)_2$

Riebeckite and variants of the species are widely distributed the world over as can be seen from the list of known localities: Socotra Island, Indian Ocean; Minussinsk, Siberia; Asbestos Mountains, Griqualand-West, South Africa; Abyssinia; Southern Sikkim, India; Narsarsuk, Greenland; Corsica; Romania; Wakembach, Les Vosges, France; Gloggnitz, Austria; Golling, Salzburg Austria; Ruka near Domashow, Moravai; Mynydd, Carnarvonshire, Wales; Ailsa Craig, Scotland; Portaine, Eire; Templeton, Ontario, Canada; St. Peter's Dome, Colorado; Paisano Pass, Davis Mountains, Texas; White Mountains, New Hampshire; Franklin and Scotch Plains, New Jersey; Beacon Pole Hill, Rhode Island; Quincy, Massachusetts.

In my collection of micro-mounts are specimens of a fibrous bluish Hornblende, which may well be Riebeckite, from a small Granite quarry near Ravenswood Park, West Gloucester, Massachusetts.

Specimens of the superb long-fibered material from Africa are seen in every mineral museum and in most mineral collections. The Colorado locality has produced a number of large black crystals. Excellent specimens were collected in the Fallon Quarry, Quincy, in 1907, by Professor Palache of Harvard. Nearly all of those specimens are now in the museums, but a few are to be seen in private collections.

In the Quincy area, wherever there is a hill, are Granite quarries and many extensive rubble piles, locally known as 'grout-piles'. Formerly a number of quarries were in operation simultaneously, but at present only two are worked; one for structural stone and the other for crushed stone.

The bluish-black to greyish-blue, acicular to fibrous Riebeckite has been observed almost everywhere in this area as thin coatings of short fibers in fissures and fault planes in the Granite. The fibers run nearly always slightly diagonally but occasionally parallel to the surfaces on which they occur, thus the relative lengths of the fibers are usually governed by the width of the fissures.

Immediately south of West Quincy depot are huge rubble piles from early workings, when early the entire top of the hill was removed. The whole area is pock-marked with quarries, one of which is the deepest in all Quincy. The Granite for the Bunker Hill Monument came from its upper levels. It is from this long abandoned quarry that the long-fibered Riebeckite was reported.

Mr. Ralph Franks, of Quincy, and I have for some time been interested in the Granite minerals of the region and have explored several quarries and rubble piles. During the fall of 1944 we made our first descent into this quarry and located on a great fault plane the mineral we were after. The water level had apparently risen several feet since the earlier discovery and now the access was blocked completely. However, we saw much Riecbeckite on the overhanging fault plane and decided to wait a few months, when the water would freeze and thus make it possible to search the entire quarry.

About the end of the year the ice was several inches thick but a heavy snow fall made a descent too dangerous and we waited until New Year's Day when nearly all of the snow had melted. When we came to the quarry we found the pit itself clear of snow but some of the walls were covered with thick masses of ice and

the only approach to it, which is a huge rubble pile of large irregular blocks of Granite, was under several inches of snow coated with a heavy crust of ice. Evidently this pile was a natural refrigerator which prevented the snow from melting and caused the intermittent showers to form the heavy ice crust.

We decided to try and began our downward trip as cautiously as possible knowing that a false step would have sent us bouncing down over the cliff into the pit far below, which would have meant the end of mineral collecting for us. The rock pile rests on the western end of the overhanging fault plane which constitutes the entire southern wall of the quarry. It is about 20 degrees out from the vertical and reaches half way across the present water level in the pit. If and when it topples over it probably will register on the nearest seismographs as a minor earthquake. At the top edge is a narrow ledge over which boulders have fallen into the pit and almost filled the western end of it with debris.

It was necessary to hammer off the ice and scrape off the snow for every step downward. Upon reaching the narrow ledge we found it under a heavy mass of ice and a detour was made upwards to where a steel cable is attached to an old steam pipe. This cable is the only means of getting down into the pit. Fortunately there was a small level spot on the icy ledge near the cable large enough to stand on and leave some of the equipment. Franks want first to this ledge and I handed him the bags. He then slid down the cable over the overhung into the pit below. Again the bags were handed him from the ledge and a few minutes later I joined him below the overhang. After this was passed the rest was comparativly easy and we were soon at the water level. The ice was safe all over the quarry. First we explored the other walls but found nothing of interest. Then we went to the overhanging fault plane and began looking for the best specimens. This was a time when one could afford to be very selective because there was enough material at hand. We rescued the specimens at the very edge of the ice first in case the water level should continue to rise and forever cover them with slime and rust. The ice was under a quarter-inch of water from the showers but under the overhang the constant dripping had melted the top of the ice and there was nearly an inch of icy water to walk in. Anticipating the dampness of the place I had smeared my boots with grease before leaving home but it did not take long before my feet were thoroughly wet. Franks wore rubbers but the water was too deep and he too got wet. In the excitement of viewing so many fine specimens we forgot completely all about water and weather. We saw much Riebeckite from the edge of the ice up to 30 - 40 feet above.

Almost the whole plane is covered by this mineral most of which has altered to or is infiltrated with Limonite. Some sections are encrusted with a white botryoidal mineral showing microsopic crystals. Quartz, Albite and at least one other mineral have been found but the material has not been thoroughly examined.

Thanks to the ice it was possible to get to sections of this wall which could not otherwise have been reached except with a raft. There is enough of old timber for one, floating about in the quarry, if anyone wanted to go to the trouble and were lucky enough to find it within reach.

Our bags were soon filled. The clouds above were getting ominously dark; just then a few boys came and began throwing rocks down onto the ice but thanks to the overhang they could not see us nor did they suspect that anyone could be down in the pit. A quarry worker was killed that way several years ago in the nearby quarry when a boy threw stones.

It was about two p. m. and we began the ascent; it took us twenty minutes of hard climbing where it had taken nearly an hour to get down. As soon as we were safely out of the quarry we had a quick lunch on a sandwich and hot coffee; seldom has anything tasted as good. Our adventure was over and we hurried down to the abandoned depot. Now the rain started in earnest but after a short wait the bus came and we were on the way home none the worse off for the ice wa-

ter in our shoes.

The average length of the fibers is about two inches but we found specimens with fibers over ten inches in length which may well be a record for Riebeckite found outside of Griqualand.

A descent into the quarry is definitely dangerous in any season and utmost caution must be taken. Persons not physically fit should not even attempt it. If the level of the water continues to rise there will be many more fine specimens available later on.

To mineral collectors familiar with Pegmatite outcrops these Granite quarries may seem quite barren of specimens. There are very few and small seams of Pegmatite. Yet, to keen collectors there are several unusual and rare species to be found. The following is a nearly complete list of species and varieties reported from the Quincy area:

Sulfides
- *Galena,* crystals and cleavages
- *Pyrite,* crystals and masses
- *Sphalerite,* crystals and cleavages

Haloids
- *Fluorite,* crystals and cleavages; purple, bluish and white

Sulfates
- *Pickeringite,* efflorescences

Oxides
- *Hematite,* crystals, rosettes
- *Ilmenite,* crystals
- *Limonite,* pseudomorphs after Siderite, Calcite and Pyrite crystals and masses replacing Calcite veins
- *Magnetite,* micro crystals
- *Anatase,* twinned crystals

Carbonates
- *Calcite,* small crystals, cleavages partly fluorescent (pink)
- *Siderite,* small crystals
- *Parisite,* small orange brown crystals

Silicates
- *Quartz,* Amethyst, Smoky and Milky crystals and massive also crystals with inclusions of Riebeckite, Hematite and Siderite crystals.
- *Microcline,* cleavages
- *Albite,* small crystals and with inclusions of Riebeckite
- *Labradorite,* small phenocrysts
- *Chlorite,* small crystals
- *Riebeckite,* black crystals, acicular and fibrous blue coatings
- *Aegirite,* dark green crystals
- *Epidote,* small crystals and massive
- *Zircon,* roughly crystallized reddish granular masses
- *Zircon,* var; Cyrtolite, small crystals.

Luzonite Found in the Philippines

Luzonite is a dark, reddish, steel-gray copper-arsenic-sulphide having the composition of enargite. It was first found in the copper mines of Macayan, Lepanto district, northern part of the island of Luzon, Philippine Islands, where it is associated with barite, enargite, pyrite, quartz, and tetrahedrite. The mineral received its name from the island on which it was found.

Aurichalcite Near York, Penn.

In a limestone quarry near York, in southeastern Pennsylvania, interesting specimens of pale green aurichalcite have been found. The mineral occurs as small tufts in cavities in the limestone associated with dolomite and quartz crystals.

York is a city of about 60,000 in the central part of York County.

Additional Note on New Brunswick Copper Mines

Editor Rocks and Minerals:

In my discussion of the New Brunswick copper mines which appeared in the last issue of *Rocks and Minerals,* I should certainly have mentioned the new publication which deals with same, to wit:

Bulletin 57, Geologic Series: *Copper Mines and Mining in New Jersey,* by Herbert P. Woodward; Dept. of Conservation and Development, Trenton, N. J., 1944.

It does not add much to what was published in earlier works, tho it discusses the New Brunswick mines in detail, and brings out the fact, hitherto unknown to me, that there was at one time a little stamp mill near the river and the drainage tunnel running under Mine Street was used to bring water from Mine Run to the mill.

I am certain that I had completed the article for you originally before the bulletin on copper mines came into my hands.

A. C. Hawkins,
No. Plainfield, N. J.

May 9, 1945

TAMAQUA PYRITE

By PETER ZODAC

In the Anthracite coal mines of Tamaqua, Penn., pyrite is a very common mineral. It may occur as veins or small masses in slate, crystallized or in isolated crystals in slate, or it may be found replacing fossil ferns also in slate. Many nice specimens may be found.

In one mine where the surface soil had been stripped exposing a large coal bed, isolated pyrite cubes were so common in one section (where the coal was rather soft and crumbly), that the crystals stood out very conspicuously. They were easy to remove — you could pick them out with the fingers. And they were the largest I ever saw anywhere in the coal mining area — some of the crystals were one inch long on the face. Unfortunately, the larger the crystal the poorer the quality and, furthermore, the entire lot of crystals once exposed to the air would decompose within a few months.

Thin veins of lustrous drusy pyrite were common in the mines and these were of special interest to the miners who would collect them. For these specimens were the "sulphur diamonds" of the coal mines and they were often cut and shaped to fit rings, pins, etc. A "sulphur diamond" was never polished but was used as is except that it would have to be cut and trimmed to the proper size. A "sulphur diamond" was the most durable of all the pyrites found in a coal mine — many would last for years without decomposing.

Although nice specimens of pyrite are common in the hard coal mines of Pennsylvania they are often hard to keep — sooner or later most of them will begin to decompose and in time will have to be thrown away.

Tamaqua is in the eastern part of Pennsylvania (in N. E. Schuylkill County).

Emeralds in South Africa

Emerald crystals, some of good color, are found at a number of localities in South Africa but the most important occurrence is found a few miles east of Gravelotte in the Letaba area, in the northeastern part of the province of Transvaal. The crystals are found in pegmatite associated with apatite, molybdenite, and black tourmaline.

Near Baviaanskop, Namaqualand, small emerald crystals occur in biotite schist.

Schungite Found in Russia

A mineral which is now and then seen in collections is a black, hard, lustrous, metallic-looking substance which resembles coal or an unusually hard graphite. The mineral is schungite and consists of pure carbon; it is placed with the native elements, near graphite.

Schungite occurs in thin layers in phyllite near Schunga (near Lake Onega), in Olonetz Province (or Government) of northwestern Russia.

Kingsgate, N. S. W., Noted For Molybdenite

At Kingsgate, in the New England tin-gold area in northeastern New South Wales (eastern Australia), very fine crystals of molybdenite are found. Some of these crystals are quite large, up to 5 inches long and 3 inches thick, and can be had free from the matrix.

Some very interesting specimens occur with rock crystals; the finest specimens known of rock crystals with molybdenite inclusions come from Kingsgate.

Finest Bournonites Found in England

Bournonite is a sulph-antimonite of copper and lead and of a lead-gray color. The most beautiful crystals known occur in the Herodsfoot mine, near Liskeard, Cornwall, in southwestern England. The finest crystals are associated with rock crystals.

The Herodsfoot, a copper-lead mine, is noted for many other fine minerals.

THE FRANKLIN AND MARSHALL COLLEGE MUSEUM OF NATURAL HISTORY

One of the most unique and interesting museums in the United States is the Franklin and Marshall College Museum of Natural History, located on the third floor of the Administration Building situated on the campus of the Franklin and Marshall College, Lancaster, Penna.

This museum is unique in the way the exhibits are presented to the Public, using the system of lecturing in conjunction with the displays. Mr. John Price, Chief Curator, expresses the views of the entire Staff with his statement "Museums are not, of necessity, stuffy, dusty buildings, full of useless and forgotten relics. We are striving to introduce the Public to the idea that museums are living encyclopedias of living knowledge". The exhibits are based upon the foregoing statement and are in step with current events and in which the Public shows a definite interest.

The visitors do not have any trouble finding answers to their questions because members of the Staff are continually circulating among them to give explanations of the exhibits.

The Museum has been active in promoting new interest in the Natural Sciences by starting young people off on the right path, especially in Mineralogy where many minerals have been given to Boy and Girl Scouts and to individuals who have shown interest in the subject.

The Fluorescence and Phosphorescence demonstration is one of the finest in the United States, not only showing the phenomenon in a large number of minerals but, also, in materials of every day use. This exhibit is quite popular with the visitors because they take an active part in the demonstration and may get non-technical answers to their questions.

The Mineralogical Department has a large collection of minerals and a mineral study collection, both of which are now in the process of being cataloged. In the future this department plans to feature a display of local minerals and localities, of which there are quite a few.

The Staff, all having interest in Mineralogy, are as follows:—

Dr. H. H. Beck, Professor of Mineralogy and Chemistry, of the College Faculty, Director of the Museum.

A well known Mineralogist and Ornithologist, and author of "Minerals of Lancaster County" and numerous articles in scientific journals.

Mr. John Price, Chief Curator.

Authority on Geology and Paleontology, and popular lecturer on Natural History.

Mr. Howard L. Feather, Associate Chief Curator.

(Astronomy, Conchology, and Physics.)

Dr. H. K. Groff, Curator of Botany.

Mr. J. Barton, Curator of Archaeology.

Mr. A. Sherts, Curator of Entomolgy.

Mr. K. Corbit, Curator of Ornithology.

Mr. R. Asniss, Bacteriologist.

Mr. L. J. Duersmith, Curator of Mineralogy.

(Member of ROCKS AND MINERALS ASSOCIATION.)

The Staff extends an invitation to the members of the ROCKS AND MINERALS ASSOCIATION, when passing thru Lancaster, Penna., to visit with them. If possible, drop a card, in advance, to the Curator of Mineralogy, College Museum, Franklin and Marshall College, Lancaster, Penna., to enable him to make plans to meet with you.

The Museum is open to the Public on Saturday and Sunday afternoons, from 1:00 P.M. to 5:00 P.M. and any evening by appointment.

Turgite First Found in the Urals

Turgite is a hydrous iron oxide, intermediate between limonite and hematite. It is a common mineral at some localities and is often found in beautiful black lustrous botryoidal masses ("patent leather ore" of some collectors).

It was first found at the Turginsk copper mine on the Turga River near Bogoslovsk in the central Ural Mountains of western Siberia. It received its name from the locality.

BROWN AND BLACK

By DONAL HURLEY

Little Falls, N. Y.

I have spent many hours during the past thirty-odd years watching smoke rise toward the sky above whether from the camp fire, the factory stack, the belching locomotive or boat, or the chimney of an American home. The color of the smoke varied almost as greatly as did the source of the fire which gave it birth. Some of the smoke was the whitish color of pure milk; while some was black as pitch. Between the two extremes of smoke color ranged several shades of brown. Yet it was all smoke. White, to brown, to black —smoke.

I have often wondered about this range of smoke color from white to black through shades of brown as I examined many specimens of what crystal literature and text call "smoky quartz crystals". They are all brown or black in color. Should they be called smoky quartz because of the brown or black color which we can associate with smoke? Then why have an individual color name as "milky" for the whitish colored quartz when that color, too, can rightly be identified as smoky?

Please pause one moment while I put on my steel helmet before you throw verbal grenades my way. Yes, I realize that the reason for the milky color is different than the reason for smoky color in quartz. The former is claimed to be the result of light reflection from a multitude of microscopic bubbles within the crystal. The latter color of brown or black was originally said to be caused by vegetable mater but more recently smoky color is stated to be the result of radium eminations from surrounding rock. I rather agree with the more recent claim because I have seen in the office of Dr. Hugh D. Miser, of the U. S. Geological Survey in Washington, D. C., four brilliants cut from rock crystal two of which were left in their nature clear or colorless state while one other was exposed to radium activity for 14 hours and was a beautiful dark brown bordering on black, while the other brilliant had been exposed for 10 hours and was an equally beautiful citrine in color. Another and distinctly different cause of color in quartz crystals is mineral inclusions such as the black crystals from Colorado and Montana which are so colored due to a dense mineral inclusion generally tourmaline. Mineral inclusions can give quartz crystals other colors such as the chloritic green and hematite red. There is also the artificial coloring of quartz for industrial reasons. But we are wandering off the chosen path of our smoky quartz crystals.

When and where — or why the name "smoky" first became associated with quartz I have never found of record. We can not account for the name smoky through the Scottish source of Caringorm because locality is the background for the name in that case. The name of smoky as applied to the brown or black quartz crystal is evidently not of sufficient historical or scientific importance to warrant retaining it as a desirability or necessity. I do not consider retaining the name of smoky as applied to the brown and black quartz crystal as even a good wish.

There will probably be many contradictions levelled at the above statement. It is most difficult to break away from fixed standards. We are people of habit and identifying the brown and black quartz with the name smoky is a habit. And with so distinct a color difference between the brown quartz crystal and the black quartz crystal there seems no valid reason to longer retain the habit. The time has come in quartz crystal language and literature to name the brown quartz crystal what it is — brown; and the black crystal what it actually is — black.

I double check this position not only because there is a distinct color difference between brown and black which we should recognize in the quartz crystal by something more specific than the general term of smoky; but if you are to insist upon retaining the title of smoky then to

be consistant the name "milky" should be abolished and that color group of quartz be re-grouped into the smoky. Is that being radical or insane in quartz terminology? I personally believe to drop the name of milky and call such quartz smoky as are the brown and black is both radical and insane. So as I strongly believe that the milky quartz should be MILKY; I also just as strongly believe that the brown quartz crystal should be BROWN, and the black crystal should be BLACK.

So let us have brown quartz crystals and black quartz crystals — not smoky!

Amosite Occurence in South Africa

One of the many interesting minerals occurring in South Africa is amosite which was discovered about 1919. It is an iron amphibole, gray to white to pale green in color, of a fibrous structure, and is mined for asbestos. Its fiber is coarser than that of chrysotile asbestos but its tensile strength and resistance to acids is higher. The length of its fibers (up to 12 inches) — much longer than that of chrysotile — is of great advantage to its commercial uses.

Amosite occurs in veins in and parallel to the bedding of an ironstone composed chiefly of quartz and iron oxide. The deposits occur along the Olifants River between Chuniespoort, south of Pietersburg, to the Steelpoort River, north of Lydenburg, for a distance of about 60 miles, in northern Transvaal.

The name "amosite" is derived from the initial letters of the company, "Asbestos Mines of South Africa", who mine the deposits.

Spearhead Marcasites From England

In the chalk marls of Dover and Folkstone, on the eastern coast of Kent County, of southeastern England, interesting twinned crystals of marcasite occur. Because the crystals are flat and spear-shaped, the local inhabitants have long believed them to be heads of ancient Roman weapons that had been buried in the marl.

Copper-stained Quartz From Arizona

A mineral which takes a nice polish and is much used for gems or for ornaments, when in a compact massive form, is greeniish-blue chrysocolla from the Globe and Miami districts of Gila County, Arizona. A mineral from these districts which has frequently been mistaken for chrysocolla is quartz which had been stained greenish-blue by copper. Sometimes the entire quartz is thus stained but othertimes only parts of it. This copper-stained quartz also takes a beautiful polish and can be used as a gem.

The copper-stained quartz can easily be detected by its massive form and especially by the difference in hardness. Chrysocolla is only 2.4 in hardness but the stained quartz is 7.

Wavellite Occurrence in Tennessee

Wavellite has been found at a number of localities in the manganese mines of Cocke County, of E. Tennessee. At Del Rio, in the eastern part of the county, where massive psilomelane has been mined, wavellite is quite plentiful as stringers and veinlets filling fractures in the psilomelane. Sometimes the wavellite forms beautiful fan-shaped groups of white radiating fibrous crystals up to ½ inch in length.

Four manganese minerals occur in the Del Rio district. These are: manganite, crystalline, black, with radial and fibrous structure; psilomelane, massive, nodular, also nice botryoidal masses; pyrolusite, black, sooty masses; and wad, black, loose, earthy masses or earthy powder.

Gem Cyanite Occurs in Switzerland

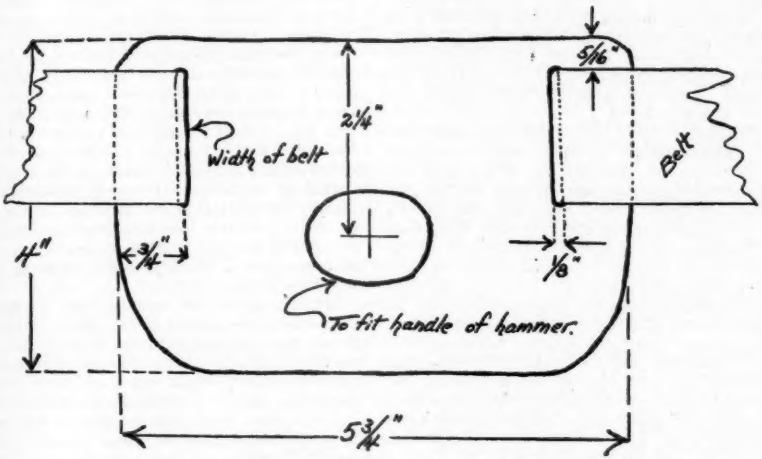
Beautiful blue transparent crystals of cyanite, associated with brown crystals of staurolite in a white paragonite (mica) schist, are found at Monte Campione, in the northern part of Tessin (Ticino) Canton, in southeastern Switzerland. This cyanite has been cut for gems. The locality is in the famous St. Gothard region.

Cyanite is also spelled kyanite.

COLLECTORS' KINKS

THAT MINERAL HAMMER

By HAROLD W. RYALL



Sketch of mineral hammer holder

In my tyro days on mineral trips, the trusty hammer was more often than not, conspicuous by its absence. Much time was lost searching for it. Where, oh where did I leave that hammer?

When one is carefully chipping away at the superfluous matrix on a choice specimen, one has a healthy grip on it, but when one is climbing over quarry dumps and other tricky places one needs both hands free. Then the disposition of the hammer is a problem, for when stuck into the belt, it becomes a very uncomfortable and dangerous practice. Then, too, placing it in the mineral bag or knapsack is not practical.

After several years the writer arrived at this simple solution, a belt holder unlike the usual type that dangle loose and flop about. All one needs is a piece of leather 4 x 6 inches of ⅛ inch stock, a sharp knife or razor blade.

A sketch shows the dimensions, the belt slots and handle hole will be dependent on size of same. The holder seems best located on belt over rear right hip pocket, tho some may prefer it at side. In use when hammer handle is inserted the holder curls up forming a very secure pocket for the hammer head, making what the writer thinks a dern fine carrier. At least we swear by it, not at it.

What is your specialty—crystals, gems, rocks, ores? Our dealers have them all and all of good quality at attractive prices.

Club and Society Notes

GEM STONES AND CROWN JEWELS OF ENGLAND

Subject of L. A. M. S. Meeting

Since the earliest days of their history, gem stones have held a fascination for mankind. This was further evidenced by the increased attendance at the meeting of the Los Angeles Mineralogical Society on Thursday, April 19th, when "Gem Stones" was the subject of an intensely interesting talk by Dr. Thomas Clements, during which replicas of some of the Crown Jewels of Engalnd were shown and their histories given.

Perhaps as much as 75,000 years ago men had been attracted by pretty pebbles and bits of quartz which, thru the art of the gem cutter, have become the polished and faceted gem stones we know today. Thru the ages that interest has manifested itself in gem collections of fabulous value, as well as in the enthusiasm of the humble rock hounds who wander along the beaches, over the hills and thru the desert, eagerly seeking specimens to add to their mineral collections. Even the replicas of such famous diamonds as the Kohinoor, the Orloff and the Shah of Persia are fascinating to behold and it is easy to understand the violent histories attending many of them, either because of their matchless beauty or their great intrinsic value. Dr. Clements gave a brief history of each one represented.

Space does not permit a review of the subject but those present learned a great deal of how and where most gem material has been found, and what determines the value, such as beauty, rarity, durability, color and brilliance, and perfection. Because gem stones consistently increase in value, they are often purchased as an investment on this account, as well as the ease with which they can be concealed and transported and the ready market. Fortunes have often been preserved and smuggled out of a country by political refugees in the form of jewels. North America has not produced many rare gems but many of the finest are now in private collections in this country. Strangely enough, many of the largest diamond found had to be cut into smaller ones, in order to find a market, although even these have values running into hundreds of thousands of dollars. The great fortunes of India are largely represented by priceless jewels, rather than stocks and bonds.

Some beautfiul fluorite specimens from Ohio were given as door prizes, which were won by Fern Schwartz, Charlotte Wishman and Ben Schwartz. Mr. Stephen G. Benedict won first prize in the book raffle and George Craighead won the second.

There were some exceptional mineral displays. Members brought excellent specimens of the 50 minerals selected for study and president Lehman issued a challenge to other members who might think they had better specimens to bring them to the next meeting and prove it. Among other specimens displayed were an unusually fine smoky quartz and some amethyst, by Mrs. MacMullen; opals of unusual fire and color by "Chuckawalla Slim" and Mr. and Mrs. Hirsch were the envy of all because of a rarely beautiful opal cameo and some Brazilian topazes of fine deep color, and one topaz of 495 karats, of a lighter color. Ellsworth Beach brought a large, emerald-cut smoky quartz and a 100 karat aquamarine.

During the Seminar, Gertrude McMullen explained an emerald tester, also a dichroscope, for testing crystals and an instrument for measuring crystals and angles of the faces. She also brought a Boule, which showed how synethetic gems are made.

Mr. Linde, of the Spencer Lens Company, brought to the meeting an Abbey Refractometer and a Petrographical Microscope and explained their functions. It seemed that these instruments, with their scope and range of adjustments, can do everything but talk.

It was announced that the Society will have its usual auction in June and members were reminded to be on the look-out for worthy specimens for that occasion.

At the meeting on May 17th, Mr. Harry Vroman, a camera pictorialist, will conduct an Arm-Chair Field Trip by means of a series of Kodachrome scenes of the desert. This is a treat which shouldn't be missed on any account.

Howard, Paget, Publicity Chairman,
1619 West 23d Street,
Los Angeles 7, Calif.

Pacific Mineral Society

At the May 15, 1945, meeting of the Society, Dr. Thomas Clements, Professor of Geology at the University of Southern California, was the speaker whose subject was "The Emerald Mines of Muzo, Colombia".

The Society meets at the Asbury Apt. Hotel in Los Angeles, Calif.

Mineralogical Society of Arizona

Two meetings of the Society were held during May at the Arizona Museum, Phoenix, Ariz.

A regular meeting was held on the 3rd and the chief event was a talk by Miss Ruth Simpson, Curator at Heard Museum, whose subject was "Prehistoric Rockhounds", illustrated by material and pictures.

On the 24th, the end of the year jamboree was held.

New York Mineralogical Club

American Museum of Natural History, New York, N. Y., Wednesday, April 18, 1945.

The meeting was convened at 8:10 P. M. Adjourned: 9:45 P. M. Attendance: 60.

The president, Mr. Taylor, presented to the members the slate of officers for the coming year, nominated by the nominating committee. No other nominations were made and it was moved, seconded and passed that the secretary be empowered to cast one ballot electing the following officers:

President: Mr. O. Ivan Lee
First Vice-president: Dr. F. H. Pough
Second Vice-president: Mr. Ralph J. Holmes
Treasurer: Dr. C. H. Kindle
Secretary: Mrs. Edward J. Marcin
Directors: Mr. G. S. Stantan and Mr. J. A. Taylor

Mr Leonard Morgan, chairman of the excursion committee, presented plans for an excursion to a carnelian locality near Second Watchung Mountain. Most of the members felt, however, that the eight-mile walk involved made the trip impractical. Other localities were discussed, but the difficulties of transportation appeared to be insurmountable.

Mr. Edmund Wise of the International Nickel Co. then addressed the meeting on the subject of "Platinum". Describing the Sudbury, Ontario locality, Mr. Wise said the proportion of platinum was about one part per million and was mined by placer methods as a by-product of the copper-nickel production. Osmium, iridium and ruthenium minerals occur with the platinum.

Although much of the platinum produced is made into jewelry, there are other important uses. Platinum is used as a corrosion-resistent coating for other metals and, in the finely divided state, as a catalyst for many chemical reactions. Since platinum is insoluble in molten glass it plays an important part in the glass industry.

The specimens exhibited by Mr. Wise included a very thin platinum wire produced by the Wollaston method in which platinum-cored wire is drawn to a very small diameter and the sheathing metal is then removed by acid, leaving the platinum core which, according to Mr. Wise, has a diameter of a few millionths of an inch. Other specimens included a rough platinum nugget about two inches in diameter and an exceptionally fine sperrylite crystal nearly half an inch in diameter.

The meeting adjourned with a vote of thanks to the speaker.

Respectfully submitted,
Elizabeth Armstrong, Secretary

New Jersey Mineralogical Society

The May meeting of the Society was held on Sunday May 6th, 1945, at the Newark Museum, Newark, N. J. The meeting lasted from 2:00 to 4:00 p.m. and consisted of a tour, directed by the curator, through the excellent mineraolgical exhibits.

Los Angeles Lapidary Society

The regular monthly dinner and meeting of the Los Angeles Lapidary Society was held at the Royal Palms Hotel, Los Angeles, Calif., Monday evening, April 2nd, 1945. An excellent program was prepared by Mr. Loren Mitchell consisting of the Open Forum conducted by Mr. Lelande Quick and a fine presentation of the cutting of cameos and intaglios by Mr. E. F. Montgomery.

The Open Forum discussed the polishing of soft stones and presented some splendid suggestions for polishing this difficult material.

Mr. Montgomery explained the cutting of cameos and illustrated his work by showing the various shells and blanks from which the cameos are made. An interesting exhibit of tools was shown.

Final instructions were given for our coming exhibit which promises to be the best and largest ever held of amateur lapidaries.

Charles G. Schweitzer
Reporter

Queens Mineral Society

(Minutes of Meeting of May 3, 1945)

The meeting was called to order at 8:20 p.m. There were 18 members and guests present.

The program committee reported that there would be no definite speaker for the month of June.

The members, who had made recent field trips, were called upon and were asked to report findings, etc. to the Club.

A committee of two were appointed to investigate as to just how the members could take the course on megascopical identification of rocks. Mrs. Marcin was appointed Chairman and Mr. Green as the second member.

Dr. Daniel O'Connell was the speaker of the evening. He spoke on "Clouds — Minerals of the Air". In the course of his talk he showed kodachrome slides on cloud formations. His subject also covered water crystallization in the upper stratosphere.

The meeting adjourned at 10:25 p.m.

Respectfully submitted
T. Fredericks, Secretary

Springfield Mineralogical Society

A regular meeting of the Society was held on May 16, 1945, at the high school in Springfield, Vt. Miscellaneous contributions of interest to collectors was the main event.

Rochester Academy of Science
(Mineralogical Section)

At the meeting of the Section held on May 10, 1945, at the Rochester Museum of Arts and Sciences, Rochester, N. Y., a symposium on opal was the main feature. The subject was divided into four parts as follows:

History, origin, and mining, by Dr. D. L. Adler
Cutting and polishing, by L. A. Cistar
Hyalite, by J. A. Hartfelder
Virgin Valley Opal, by R. C. Vance

Marquette Geologists Association

The Annual Auction of the Association was held at the meeting on May 5, 1945. A most interesting petrified wood specimen from Fall River County, S. D., which was donated by Midshipman Eugene Foss, was raffled off at the meeting.

The Association meets at the Academy of Sciences, Chicago, Ill.

Northern California Mineralogical Society

Four meetings and a field trip were held during May, 1945, by the Society, as follows:

May 4th — Business meeting.

May 11th — Micro-mount meeting.

May 16th — General meeting at the Public Library, San Francisco, Calif.

May 20th — Field trip to Berkeley Hills for agates.

May 25th — Laboratory night.

Colorado Mineral Society

The 9th annual meeting of the Society was held on May 4, 1945, at the Museum of Natural History, Denver, Colo. Moving pictures, mineral display contest, mineral auction, and election of officers for 1945-1946 were the main features.

Boston Mineral Club

Mineral quiz and mineral identification followed a brief talk by W. W. Dennis, of Brighton, Mass., whose subject was "When Krakatoa Let Go", were the main features of the May 1, 1945, meeting of the Society whose headquarters are in the New England Museum of Natural Hiistory, Boston, Mass.

East Bay Mineral Society

Two meetings of the Society were held in May, 1945, at the Lincoln School, Oakland, Calif.

On the 3rd, a Mystery Program was the main feature. On the 17th, Dr. Austin F. Rogers, of Stanford University, was the speaker whose subject was "Jade".

Pasadena Junior College

The annual excursion of the geology classes of Pasadena Junior College, Pasadena, Calif., directed by Mr. E. Van Amringe, was held on May 4th to 7th, 1945. The itinery included areas of geologic, mineralogic, paleontologic, and scenic interest in the Mohave Desert and Southern Sierra Nevadas in Southern California.

Gem Village Rock Show

We had a BIG ROCK SHOW here at Gem Village, Bayfield, Colo., on April 25, 1945. The first one and it was a whale of a success. All local with the exception of Boodle Lane, of Galena, Kans., who brought a load of minerals and shipped two barrelfuls. We had a press agent and a photographer to cover the Show.

Frank Morse
Colorado Gem Co.

American Gem Society
(Northern Ohio Guild)

A regular meeting of the Guild was held on May 8, 1945, at Western Reserve University, Cleveland, Ohio. Dr. Donner, of the University, was the speaker whose subject was "Practical and theoretical study of polarizing microscope."

Maine Mineralogical and Geological Society

The Annual Dinner of the Society was held on April 27, 1945, at the Elks Club, Portland, Me. Prof. Joseph Trefathen was the speaker for the evening and he was followed by sound pictures on quartz and diamond mining.

State Mineral Society of Texas

The Society's *News Letter* for May described in glowing terms its very successful mineral trip to the world-famous Magnet Cove district of Arkansas. The trip was held on April 15, 1945.

Paterson Mineralogical Society

The 4th meeting of the Society was held on April 11th, 1945, at the Paterson Museum, Paterson, N. J. The program was a discussion on "The zeolites and associated minerals"; the curator of the museum, Mr. William C. Casperson, led the discussion.

Mineralogical Society of Southern California

At the meeting of the Society held on May 14, 1945, at the Pasadena Public Library, Pasadena, Calif., Dean Thomas, of the School of Engineering at California Institute of Technology, was the speaker. The subject of Dean Thomas' talk was "The geological aspects of the Colorado River Project".

Mine Yielding Gem Sphalerite Abandoned Many Years!

Editor Rocks and Minerals:

Your letter addressed to the Superintendent, Chivera Mine, Cananea, has been referred to the Geological Department of this Company.

Transparent sphalerite of a clear yellow to brownish yellow color is reported to have been produced from operations in the Cataline Mine on the Chivera claim northwest of Cananea. This operation has been abandoned for many years, and, although small pieces of relatively transparent material are occasionally found on the dump, there is no production of this material. We have a few small pieces, apparently collected from the dump, in our collection.

Molybdenite has been produced in some quantity from La Colorada Mine operated by this Company. Massive molybdenite mineralization is found; it is also found in seams and disseminations in glassy quartz, usually with chalcopyrite.

None of the other minerals you mention are common in this district.

Roland B. Mulchay,
Chief Geologist
Cananea Con. Copper Co., S. A.
Cananea, Sonora, Mexico

. . . With Our Dealers . . .

A new advertiser this month is E. A. Baust, of Eureka, Calif., who is a manufacturer of jewelry. He can supply diamonds; both loose and mounted.

George W. Chambers, prop, of the Desert Rat's Nest, of E. Pasadena Calif., is back from his recent trip to Mexico which was a grand success from the mineral end of it. Just read his ad!

Good news in store for collectors, according to the ad of J. L. Davis, of Hot Springs, Ark. Let's read the ad to find out what it is!

A new advertiser this month is Mrs. Frances Ladd, of Chicago, Ill., who has a large stock of beautiful fossils for sale. The specimens belonged formerly to her husband, who died recently and whose obituary appears in this issue.

Mineral specimens to brighten your collection, is the announcement this month of A. L. Jarvis, of Watsonville, Calif. Don't pass this by!

Ward's Natural Science Est., of Rochester, N. Y., has recently added a number of interesting specimens to its stock. Some are listed in their ad!

James W. Riley, of Springfield, Ohio, is featuring some fine labradorite as June specials.

Twenty-six excellent specimens are advertised this month by Hatfield Goudey, of Yerington, Nev.

A. E. Davies, of Alamo, Calif., has some fine selected slabs and cabochon cutting material of many varieties.

Something new — minerals by the dozen — is offered collectors this month by the H. E. Powell Co., of Little Rock, Ark.

W. C. Eyles, of Bayfield, Colo., manufacturer of the famous Streamliner Diamond Saw, sees a bright future ahead for mineral dealers and cutters. He reports that many, new in the field, are already establishing themselves in business in the great Southwest.

John L. Funk, proprietor of Wyoming Minerals, of Laramie, Wyo., has purchased the noted Lincoln Lodge in his city.

The Wiener Mineral Co., of Tucson, Ariz., have another list of excellent specimens to tempt our readers. Better look it over!

Another excellent West Texas fluorescent chalcedony with opalite is in the stock of Frank Duncan and Daughter, of Terlingua, Texas.

Hermosa Gem and Mineral Shop, of Durango, Colo., can offer some selected cutting material of various minerals.

Need any coralloidal aragonite from Bisbee, Ariz.? Roberts and Stevens, of Monterey Park, Calif., can supply nice specimens.

Salt Lake City, Utah, now has a gem and mineral store. It is operated by Jess Abernathy and is known as the Topaz Gem Co. Mr. Abernathy will be glad to meet any collector who will call on him.

The West Coast Mineral Co., of La Habra, Calif., are featuring some minerals from Mexico in this issue. Better look this ad up!

Mineralight, the most popular U. V. lamp in the country, is featured this month by Warner & Grieger, of Pasadena, Calif. It can be had in many types! Lapidary equipment is also featured by this Pacific Coast firm.

A new advertiser this month is Fred Wilson's Whispering Wind Press, of Phoenix, Ariz., who announce the release of a new book, *Rock Hounds and Arizona Minerals*, by A. L. Flagg, one of the Southwest's most noted collectors. You must order a copy of this fascinating book whose author is a member of the R. & M. A.

Another new advertiser this month is Jack Frost, of Banning, Calif., who has some beautiful Western minerals for sale. Of course you are interested in knowing what minerals are offered and so will look up his ad!

Still another new advertiser in this issue is the Lapidary Equpiment Co., Inc., of Seattle, Wash., whose offerings are lapidary equipment and supplies.

—o—

Arkansas Mineralogical Society

Peter Zodac, Editor of *Rocks and Minerals*, was honored recently when he was made an Honorary Member of the Arkansas Mineralogical Society.

VRECO

LAPIDARY SUPPLIES

★

War priorities on many materials still prevent us from manufacturing lapidary equipment, but we do have available a good stock of the following supplies for the lapidary shop:

VRECO DIAMOND SAWS . . . give you better performance . . . longer life . . . faster cutting.

6-inch	**$4.50**	12-inch	**$ 8.75**
8-inch	**5.50**	14-inch	**11.00**
10-inch	**6.80**	16-inch	**13.75**

Arbor hole sizes: ½", ⅝", ¾", ⅞", 1" or 1¼". Be sure to specify size required.

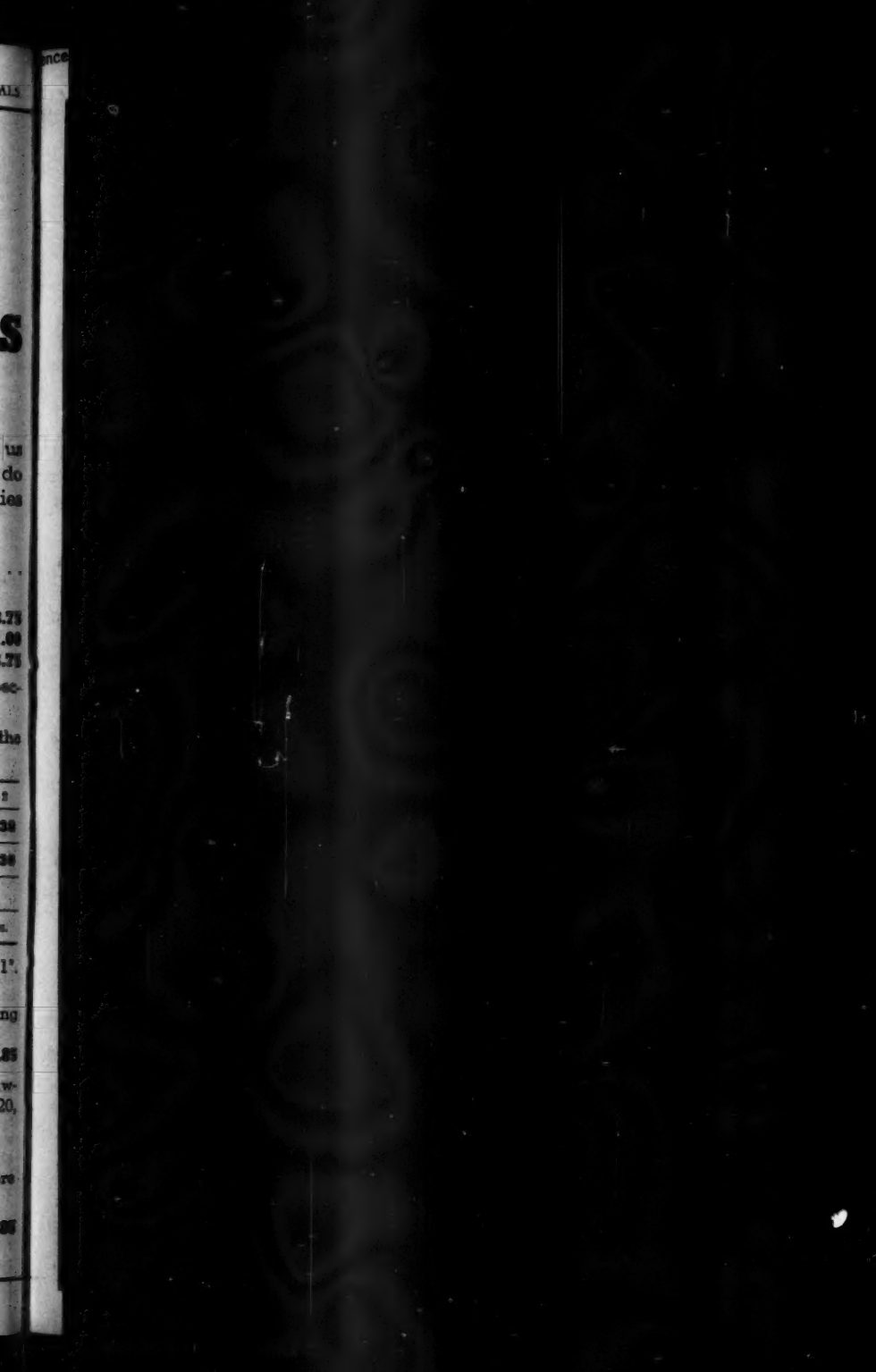
VRECO GRINDING WHEELS are made expressly for us by the NORTON CO.

Size	4 x ½	6 x 1	8 x 1	10 x 1	10 x 1½	12 x 1	12 x 1½	12 x 2
80, 100, 120 and 180 grit	**$1.05**	**$2.40**	**$3.60**	**$5.00**	**$7.00**	**$6.90**	**$ 9.60**	**$12.30**
220 grit	**1.10**	**2.60**	**3.90**	**5.30**	**7.50**	**7.50**	**10.40**	**13.30**
Minimum Arbor Hole	⅝"	½"	½"	⅝"	¾"	¾"	¾"	1"
Shipping Weight	1 lb.	3 lbs.	5 lbs.	7 lbs.	9 lbs.	9 lbs.	14 lbs.	17 lbs.

Arbor hole sizes above minimum, ½", ⅝", ¾", ⅞", and 1". 12" wheels with 1¼" hole also available.

VRECO DRESSING BRICKS are an indispensible aid to keeping wheels trued.
8" x 2" x 1" Dressing Brick.....$ .85

ABRASIVE GRAIN . . . for recoating sanding cloth, for mud sawing or lapping. Silicon-carbide grains in grit sizes 60, 80, 100, 120, 150, 180, 220, also F (240), FF (300), and FFF (400).

50c per lb. in single lb. lots **30c** per lb. in 6 to 99 lb. lots
35c per lb. in 2 to 5 lb. lots **23c** per lb. in 100 lb. lots or more
(Postage extra)

POLISH POWDER . . . Tripoli Polishing Powder, 2 lbs.....$ .85